AMENDMENTS TO THE SPECIFICATION

Replace the last paragraph on page 3 with the following rewritten version:

"When~~, as stated in claim 1,~~ at least two of the light emitters are arranged to illuminate a plurality of light valves each, it is possible to achieve a very high transmitted illumination intensity combined with a very even and uniform surface illumination."

Replace the second paragraph on page 6 through the second paragraph on page 10 with the following rewritten version:

"When~~, as stated in claim 2,~~ the illumination unit additionally comprises a first lens arrangement, said lens arrangement comprising at least one micro lens arranged with respect to each light valve so that the light emitted by the light emitter or emitters is focused on or in the vicinity of the optical axis of the individual light valves, a high utilization of the light power emitted from the light emitter is achieved.

When~~, as stated in claim 3,~~ the illumination arrangement additionally comprises a second micro lens arrangement arranged between the light valves and the illumination face, so that light transmitted through the light channel of the individual light valve is focused suitably on the illumination surface, it is ensured that the light from each channel falls on small points with high intensity on the illumination surface.

When~~, as stated in claim 4,~~ the optical light guide or guides are formed by optical fibres, a small loss of light intensity as well as great constructional flexibility in the spatial positioning of the individual elements is achieved.

The use of multimode fibres opens up the possibility of illuminating the illumination surface with more broadspectral light. When, as stated in claim 5, at least one of the light sources is formed by a short arc gap lamp, a high emitted light power is achieved from an area of limited physical extent (high radiation intensity).

When~~, as stated in claim 6,~~ the light source comprises a short arc gap lamp having light receiving optical light guides or fibres which are arranged within an angle of +/- 75' with respect to the equator axis (E) of the lamp on a ball face around the lamp, and which are optically connected to and conduct light to the light emitters, it is ensured that the predominant part of the light emitted from the light source is gathered in the light guides, whereby the coefficient of utilization is very high.

When~~, as stated in claim 7,~~ at least one of the light sources is formed by a laser source, it is possible to distribute the light sources so that e.g. a row of laser sources can supply the total number of light valves.

When~~, as stated in claim 8,~~ the illumination unit comprises a plurality of light emitters in the form of light guides, each of which is optically connected to a light source arranged to illuminate a plurality of light valves arranged in a given face shape, at least one collimation lens being arranged between the light emitter and the face shape so that collimated light is conducted to a first micro lens arrangement associated with the plurality of light valves, a homogeneous illumination of a plurality of the light valves from each light emitter is achieved.

When~~, as stated in claim 9,~~ the face shape of the light valves forms a hexagon, a good approximation to a circle and thereby a high utilization of the light energy from a light emitter of circular geometry are achieved. Another W-0 98/47042 advantage is that hexagonal illumination faces are extremely advantageous to use in connection with scanning movements of a plurality of illumination units built together. Thus, hexagons may suitably be shaped and positioned mutually offset in and transversely to the scanning direction.

When~~, as stated in claim 10,~~ the individual light valves are arranged in rows in the transverse direction of the face shape with the light valves at a given mutual distance, said rows being mutually offset in the transverse direction, it is possible to distribute the light linearly over a great width.

When~~, as stated in claim 11,~~ the rows are arranged such that the projection of all the individual light valves in the transverse direction in the face shape results in a plurality of illumination points at a mutual distance in the transverse direction, it is ensured that light may fall on points with a considerably higher resolution than corresponding to the distance between the individual light valves because of their physical extent if these were positioned in a single row in the transverse direction.

When~~, as stated in claim 12,~~ the face shape or shapes of the light valves are arranged on one or more illumination heads, each illumination head and the illumination face being adapted to perform a relative movement across an illumination area, said device being also provided with a control unit for controlling the light valves in dependence on the

relative movement between the illumination head and the illumination face, an advantageous embodiment of the invention is achieved.

When~~, as stated in claim 13,~~ the illumination head or heads are arranged as a rod whose relative movement with the illumination face is a simple progressing movement in the transverse direction of the rod, it is ensured that illuminated points may be generated in the entire or a considerable part of the width of the illumination face and by virtue of the scanning movement on the entire or a considerable part of the illumination face.

When~~, as stated in claim 14,~~ the illumination unit between the light valve arrangement and the illumination face additionally comprises optical means for spreading the light beams emitted by the light channels across the illustration face, exposure is ensured over an area which is physically larger than the area covered by the light channels, thereby e. g. allowing compensation for non-active edge areas around a light valve arrangement.

When~~, as stated in claim 15,~~ the light valves of the illumination unit are formed by electrooptically based light valves (spatial light modulators), such as LCD, PDLC, PLZT, FELCD or Kerr cells, a great design flexibility is achieved with respect to selection of light modulator principle in the individual application, including also that standardized components can reduce the production price. When, as stated in claim 16, the light valves of the illumination unit are formed by reflection based electromechanical light valves, such as DMD chips, a solution with high spatial resolution is achieved.

When~~, as stated in claim 17,~~ the light valves of the illumination unit are formed by transmission based electromechanical light valves, a solution with a very low dimming of light through the modulator is achieved.

When~~, as stated in claim 18,~~ the light guides of the illumination device are so arranged with respect to the light valve arrangement that the optical energy fed to each subset of light valves does not differ significantly from each other when the subsets of light valves illuminate adjacent areas or areas close to each other on the illumination face, it is ensured that the permissible variation in light intensity between all light emitters may be increased without this becoming visible.

When~~, as stated in claim 19,~~ the light receiving ends of the light guides are gathered in at least one bundle which directly or indirectly receives light from a reflector or a reflector system optically connected to at least one lamp, a better possibility of centrally controlling both amount and variation of the light injected into the light guide is achieved."